

# **Department of Conservation and Natural Resources Nevada Natural Resources Plan**

## **Plan Guidelines (DRAFT)**

### **Mission of the Nevada Department of Conservation and Natural Resources**

*The mission of the department is to conserve, protect, manage and enhance the state's natural resources in order to provide the highest quality of life for Nevada's citizens and visitors.*

### **Purpose of the Natural Resources Plan (NRP)**

The purpose of the Nevada Natural Resources Plan is to coordinate planning activities and develop integrated planning processes that will enhance the ability of the department to accomplish its mission more effectively and efficiently.

The plan will describe natural resources in Nevada; present information and provide analyses about natural resources management and use; identify and address natural resource conservation issues; and report on recommendations regarding policies, management actions, monitoring mechanisms and research needs. Communication with and participation by stakeholders (state, federal and local agencies, non-governmental organizations and the public) is essential to fulfill the purpose of the Plan.

### **Goals and Objectives**

#### **Goal 1**

Establish departmental coordination processes for the integration of natural resource planning and management activities within the Department of Conservation and Natural Resources.

#### **Goal 1 Objectives**

- 1.1 Develop planning principles with department-wide input to guide the natural resource planning process.
- 1.2 Inventory, review, and evaluate departmental conservation planning activities, and make recommendations to improve coordination and integration.
- 1.3 Develop recommendations for integrating departmental planning activities using criteria consistent with resource conservation policies and adopted planning principles.
- 1.4 Develop a department-wide process for coordinating the collection, management and accessibility of natural resource data using geographic information systems and the Internet.

#### **Goal 2**

Establish statewide coordination processes that integrate natural resource planning and management activities involving the department and other state, federal and local governmental agencies, non-governmental organizations and the public.

### Goal 2 Objectives

- 2.1 Develop an inventory of natural resource planning and management activities of other agencies in Nevada and of other states.
- 2.2 Identify and evaluate the department's interaction with strategic and program planning activities of other agencies and make recommendations concerning the need for improved coordination.
- 2.3 Promote partnerships with other agencies conducting natural resource planning and management activities where additional interaction has been determined beneficial.
- 2.4 Develop a statewide collaborative process for coordinating the collection, management, and accessibility of data related to natural resource conservation, use and management.

### **Goal 3**

Exchange information with stakeholders about the natural resource planning process and conservation issues.

### Goal 3 Objectives

- 3.1 Develop and implement a program for public communication and participation that encourages the public and affected individuals and institutions to participate in the development of the natural resources plan.
- 3.2 Provide and exchange information about the state's Natural Resources Plan and its development with governmental advisory boards, councils, commissions, non-governmental organizations as well as the general public.
- 3.3 Create a departmental speaker's bureau for public outreach concerning natural resource planning, education and conservation issues.
- 3.4 Maintain an Internet home page for the Department as a means of sharing information about natural resource planning activities and the Natural Resources Plan.
- 3.5 Create and maintain an inventory of natural resource education programs within the Department and make the inventory accessible using the Internet.

### **Goal 4**

Create an integrated and cooperative process for characterizing, tracking and measuring changes in the status of natural resources and ecosystems.

### Goal 4 Objectives

- 4.1 Identify and evaluate natural resource/environmental indicators used by the Department to monitor natural resources conditions and trends.
- 4.2 Identify and evaluate natural resource/environmental indicators used by other natural resource management agencies and organizations.
- 4.3 Develop indicators to measure economic and social values related to the use of renewable and nonrenewable natural resources.

### **Goal 5**

Establish a coordinated process to identify, prioritize, and address natural resource conservation issues using sound environmental planning principles (e.g., ecosystem management, sustainable development).

### Goal 5 Objectives

- 5.1 Develop and implement a process to identify, document, prioritize and report on natural resource conservation issues, to include Department-wide involvement.
- 5.2 Evaluate biological, physical and socioeconomic factors relevant to each issue consistent with the use of sound environmental principles.
- 5.3 Develop recommendations to address natural resource issues using a coordinated approach that integrates the diverse viewpoints of stakeholders.

### **Vision for the Natural Resources Plan**

*The department envisions Nevada as a state where all individuals and institutions value high standards of environmental quality, are aware of the effects of their actions on natural systems and choose to act in a manner that ensures achievement of sustainable natural resource conservation and development goals.*

### **Guiding Principles**

- 1. Sustainable Development.**<sup>i</sup> Provide for the sustainable development of Nevada's natural resources while actively protecting, managing and enhancing the environment and natural ecosystems for current and future generations.
- 2. Ecosystem Approach.**<sup>ii</sup> Application of the ecosystem approach to strategic resource management involves identifying relationships between sites, plant communities, ecosystems, watersheds the landscape or ecoregions in which they occur - the geographic framework is defined by natural, geomorphologic features and ecological boundaries. Overall, the ecosystem approach entails: 1) fostering the type and extent of land uses that are consistent with maintaining ecosystem health over the long term; 2) monitoring of the functional level of ecological services, the restorativity of renewable resources, and the quality of environmental resources; 3) sustaining the productivity of renewable resources in aquatic, terrestrial and transitional ecosystems; 4) promoting the participation of a full diversity of stakeholders; and 5) using an adaptive approach to design and test management strategies for the long term productivity and health of natural resources. An ecosystem approach to planning should be implemented to reach a better understanding of the affect of human use and management on natural systems and to identify integrated, synergistic conservation strategies.
- 3. Adaptive Management.**<sup>iii</sup> Adaptive management requires that agencies periodically review progress toward ecosystem goals, and adjust their management activities affecting the ecosystem as necessary. Adaptive management implies implementation of a rigorous process, well grounded in its understanding of ecological, social, and economic factors, and the interactions among them. It requires ongoing testing and evaluation of the impacts of management decisions. Such testing must be based on systematic program design, research, monitoring, and evaluation. An effective adaptive management approach depends upon an interagency organizational commitment over an extended period of time, and an ability to deal with the setbacks and frustrations that are unavoidable consequences

of experimentation. The ecological, economic, social and institutional factors affected by policies and management strategies should be systematically evaluated and adjusted to reflect lessons learned, scientific advancements, and changing conditions.

4. **National standards, neighborhood solutions - Assign responsibilities at the right level.** When issues of national interest (e.g., management of public lands, protection of air and water quality, conservation of biodiversity) are addressed, take into consideration the collective values of Americans, national standards and objectives, and the knowledge, ideas and values of those closest to the issues, including residents, resource users and regulators.
5. **Collaboration, not polarization - Use collaborative processes to break down barriers and find solutions.** Successful conservation policy or program implementation is best accomplished through a balanced, open and inclusive process in which interested stakeholders work together to identify and analyze issues and then develop solutions.
6. **Reward results, not programs - Move to a performance-based system.** Natural resource planning and management activities of the government should focus on the development of strategies to achieve desired outcomes, rather than emphasizing particular programs.
7. **Science for facts, process for priorities - Separate subjective choices from objective data gathering.** The knowledge of respected scientists and peer-reviewed scientific findings should be sought and used when addressing resource issues. Use the collaborative process to resolve scientific disagreements.
8. **Markets before mandates - Pursue economic incentives whenever appropriate.** Emphasize consideration of economic factors and identification of market-oriented approaches to achieve resource objectives at the lowest cost to society.
9. **Change a heart, change a nation - Environmental understanding is crucial.** The natural resource planning process should be a vehicle for raising awareness and educating people about the cumulative impact of individual decisions on the quality and quantity of natural resources and about the ecological and economic benefits of changing daily behaviors to use fewer resources or lower pollutant emissions.
10. **Recognition of benefits and costs - Make sure all decisions affecting infrastructure, development and environment are fully informed.** Selection of policy or program alternatives to address resource issues should be guided by an assessment of costs and benefits. Assessments should examine life cycle costs, economic externalities and other factors that may not be expressible in monetary terms. Neither quantitative nor qualitative factors should dominate the assessment of options.
11. **Solutions transcend political boundaries - Use appropriate geographic boundaries for environmental problems.** Natural resource issues should be addressed in planning units described by natural boundaries, such as watersheds, vegetation zones, or basin-range units.
12. **The soil, water and vegetation of the state are sensitive to disturbance and slow to recover. Therefore, renewable resource management objectives should take**

**account of the unpredictable ecological outcomes of intensive and extensive resource utilization levels, and emphasize long term sustainability and limiting disturbance.**

**13. The state's wealth of natural communities and uncommon endemic plant, animal, and invertebrate species should be recognized as an undervalued natural attribute of Nevada.**

**14. A premium should be placed on innovative solutions aimed at the frugal use of all water resources and appropriate treatment of return flow to benefit native aquatic plants, animals and invertebrates.**

### ***Endnotes***

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<sup>i</sup> Sustainable development is a development strategy that manages first and foremost natural resources and human resources as well as financial and physical assets for maintaining long-term wealth and well being. Sustainable development as a planning principle supports policies and encourages planning and management practices that maintain and improve the long term productivity of the natural resource base, and that leave future generations with better prospects and lesser risks than our own. The Departmental Strategic Plan, through the Natural Resources Plan, encourages the coordinated development of interdisciplinary planning processes that provide for the effective conservation of and the sustainable use of Nevada's biological, land, air, water, recreational resources, while actively protecting, managing and enhancing the environment and natural ecosystems for current and future generations.

<sup>ii</sup> An ecosystem is an interconnected community of living things, including humans, and the physical environment in which they interact. The ecosystem approach to conservation of natural resources is a comprehensive, interdisciplinary practice that integrates human systems with natural systems. The goal of the ecosystem approach is to restore and sustain the health, productivity and biological diversity of ecosystems and the overall quality of life. Strategic planning and management programs take stock of methods to restore and sustain natural systems and their functions and values. It is based on a collaboratively built vision of desired future conditions that integrates ecological, economic and social factors. Stakeholders such as government agencies, private interest groups, and concerned citizens work together to agree on the use, management and preservation of natural resources. In this manner, ecosystem management provides a strategy for pursuing environmental and economic sustainability through an ethic of land-resource stewardship.

<sup>iii</sup> Adaptive management is a mechanism for integrating scientific knowledge and experience for the purposes of understanding and managing natural systems. It is practiced through scientifically based management experiments that test predictions and assumptions in management plans, and then using the resulting information to improve management programs and strategies.